



Superior National Forest

Burntside Fuel Reduction

Fact Sheet for April 2, 2014

Introduction: *"We now ask the ultimate question: If we continue to limit burning to a fraction of the fire rotation before European settlement, will nature sooner or later catch up by burning truly vast areas in one or two major fire years?"* p. 157, The Boundary Waters Wilderness Ecosystem, 1996 by Myron (Bud) Heinselman, Forest Ecologist for the North Central Forest Experiment Station.

Fuel loads are extreme in an area north and west of Ely, MN near Burntside Lake (*see Map #1 Vicinity*) due to fire suppression, an aging forest with prolific balsam fir understory, 1999 blowdown, and stands killed by spruce bud worm infestations. The interface of high fuel loads with dwellings on one-way egress roads is causing grave concern among fire and land management experts. Land managers have planned and executed strategies to decrease the amount of balsam fir and downed wood in this area.

Projects Completed Prior to 2013:

- Trout Lake Prescribed Burn (1999 Blowdown EIS): 10,056 acres completed in 2005.
- Defensible Space improvement projects in targeted areas included:
 - Wolf Lake Road
 - Burntside Ridge Road
 - Passi Road
 - North Arm Road

Projects Completed in 2013:

- Reduction of ladder and dead fuels around homes and cabins:
 - Improved access and egress established on multiple driveways and private roads along the North Arm Road
 - Improved defensible space within the Home Ignition Zones on non-federal parcels.
- **North Arm Timber Stand Improvement (TSI):** Five units, totaling 124 acres, were completed on public land through TSI (hand treatment) using chainsaws. *See Map #2.*
 - North Arm Two: 40 acres
 - North Arm Three: 12 acres
 - North Arm Four: 19 acres
 - Coxey Pond: 43 acres
 - North School Section Bay: 10 acres

Projects Planned Beginning in 2014: Acreages listed for these treatments are based on current funding levels. If more funding becomes available or favorable burn conditions occur, acres may be expanded to additional units. Check future updates for the most current acreages and unit names.

- **Mechanical Treatments:** Two units, totaling 149 acres, are planned for mechanized treatment this season. *See Map #3.* Mechanized treatment fuels will be masticated (finely chopped) using an articulating rubber-tired tractor with a mulching head that is similar to brush hog mower. Expected after effects: The area may look raw at first, but increased sunlight will encourage fast growth of understory vegetation such as grasses and ferns. Areas would regenerate back to previous components with balsam fir seedlings evident throughout these areas.
 - North Arm Unit One: 71 acres
 - Wolf Lake Road Unit: 78 acres

- **Planned TSI (hand treatment) for 2014:** Five units, totaling 271 acres, are planned for TSI treatment this season. *See Map #3.* Crews of five to twenty people will fell and/or limb trees to reduce the likelihood of crown fires. Cuttings will be pulled away from the boles to the drip edge of larger pines. Heavy concentrations of cut balsam fir may need to be piled and burned at a later date to reduce fuel loading. After treatment, cut trees may be seen lying on the ground, cut into shorter lengths with the slash height kept as low as possible.
 - North School Section: 113 acres
 - Coo Lake East: 32 acres
 - Coo Lake South: 28 acres
 - Tamarack Creek: 45 acres
 - North Arm Road 2: 53 acres

- **Planned Prescribed Burns Beginning in 2014:** Prescribed fire is the most effective method for slowing the regeneration of species such as balsam fir. Six units, totaling 2,449 acres, are planned for a prescribed burn. *See Map #4.* Firing of these units will be dependent on funding, resources, weather, and social factors. The majority of the burns will happen before the first of June and after Labor Day, but a few burns may be done during the summer. Most burns will be ignited by firefighters carrying hand-held drip torches. An exception will be the remote and larger Crab Lake units. Expected after effects: Prescribed burns generally create a mosaic of blackened ground and standing burned trees mixed with pockets of green, untouched ground. Fire may create openings along shorelines and roadways and up on ridges giving people windows into the natural regeneration of a fire dependent landscape. Exposed mineral soil allows for more regeneration of pine species.
 - North Arm Road Three: 12 acres;
 - North Arm Road Four: 19 acres;
 - Coo Lake North: 17 acres;
 - Three units west of Crab Lake: 2401 acres;

For more information:

- <http://www.fs.usda.gov/superior> : scroll down, click on Fire Information, Current Prescribed Burns, Current Year's Plans, and Burntside Fuel Reduction.
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